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**REMARKS**

Claims 1-7 have been cancelled and new Claims 8-14 have been added. New Claim 8 corresponds roughly to the subject matter of original Claims 1 and 3. Claim 9 includes the limitation that the composite material includes fibers in a binder, as was originally cited in Claim 1. Claim 10 corresponds essentially to the subject matter of original Claim 4. Claim 11 corresponds essentially to the subject matter of original Claim 2. Claim 12 corresponds essentially to the subject matter of original Claim 5. Claim 13 corresponds essentially to the subject matter of original Claim 6. Claim 14 corresponds essentially to the subject matter of original Claim 7. No new matter has been added by way of these amendments.

In view of the present claim amendments, it is believed that the Examiner's indefiniteness rejections under 35 U.S.C. § 112, ¶ 2 are overcome.

Turning now to the obviousness rejections, the Examiner rejected original Claims 1-4 and 7 under 35 U.S.C. § 103 as being unpatentable over U.S. 4,943,333 to Chang ("Chang") in view of U.S. 1,527,748 to Rambow ("Rambow"). Claims 5 and 6 were held to be allowable if rewritten to overcome the indefiniteness rejections, and to include all the limitations of their base claims. Since new Claims 12 and 13 correspond essentially to the subject matter of allowable Claims 5 and 6, it is believed that Claims 12 and 13 are similarly allowable.

It is further believed that new Claims 8-11 and 14 are allowable over the cited Chang and Rambow references. Independent Claim 8 recites a billiard cue that comprises a shaft including a wood core and a skin of composite material, where the wood has a density below about 9 grams per cubic inch. As discussed in the present Specification, by combining a comparatively lighter wood for a billiard cue shaft with a skin made of composite material, the cue is advantageously able to overcome many of the deficiencies of the prior art. For instance, as discussed in the Background section of the present application, prior cue shafts that include a conventional, comparatively heavier wood core and a skin of composite material are plagued by a number of drawbacks, and consequently are not popular among billiard players. In these prior designs, the composite material adds substantial weight to the cues, particularly at the tip end of the cues, which make the cues undesirable to billiard players. Also, these designs using a conventional heavier wood and a composite coating tend to lack straightness. For these reasons, these products are disfavored by billiard players.

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The present invention is able to overcome these deficiencies by using a light wood core, having a density below about 9 grams per cubic inch, and a composite outer skin. By forming the core of a lighter wood (such as Sitka spruce), the composite skin can be made thicker in areas where a cue can benefit from being stiffer, but will not make the cue too heavy. The skin can be made very thin close to the tip, which together with the light wood core allows the cue to be of lower mass than prior composite skinned wood shafts that use conventional heavier woods. Also, since many lighter woods, such as Sitka spruce, are more stable and easier to machine than conventional heavier woods, the cues of the present invention can be made with significantly improved straightness. Thus, the present cue is uniquely able to take advantage of the best properties of wood and the great strength, durability and stability of modern composite materials.

The inventive billiard cues of Claims 8-14 are not taught or suggested by the cited Chang and Rambow references. Chang describes a process for manufacturing wooden cues that includes drilling the cue to destroy the composition of the wood fibers, and then coating a glue and water-proof material on the cue to reduce moisture absorption in the cue. The purpose of these steps is to prevent the cue from warping over time due to the effects of moisture. (See col. 1, lines 25-36; col. 16-49). Chang does not teach or suggest the use of a light wood core having a density below about 9 grams per cubic inch. Furthermore, Chang does not mention the problems of added mass and lack of straightness due to the use of a composite coating on a conventional heavier wood that the present invention has been able to overcome. One of ordinary skill in the art would have no suggestion or motivation to employ an unconventional lighter wood as specified in the present claims in combination with a skin of a composite material, as is recited in Claim 8.

Furthermore, even if one of ordinary skill in the art were to consider Chang in combination with Rambow, there would still be no teaching or suggestion to produce the invention as presently claimed. Rambow describes a billiard cue that uses two types of wood: a butt that is formed of hard wood and a shaft of wood that is lighter or softer than the wood used for the butt. Rambow relates to a particular method of joining the butt to the shaft—using a steel rod instead of a lap-joint, as had been used in prior designs. (See col. 1, lines 32-46). Rambow does not teach or suggest the use of a composite material, as is presently recited. Furthermore, Rambow does not teach or suggest a wood shaft having a density below about 9 grams per cubic

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inch, as is recited in Claim 8. Rambow only states that its shaft is made from wood that is "lighter or softer" than the "hard wood" of the butt. Rambow doesn't say how light or soft this wood is, only that it is softer than the butt. It is submitted that this is not a teaching or suggestion to use wood having a density below about 9 grams per cubic inch, as is recited in Claim 8. Thus, since the limitations of the present claims are not taught or suggested by the cited references, it is believed that Claims 8-13 are allowable.

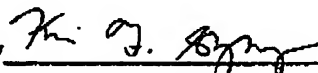
### CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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